

REMARKS

Claims 1-4, 6-17, and 19-26 are pending in the present application. Reconsideration of the application is respectfully requested in view of the following responsive remarks. In the Office Action of Aril 28, 2006, all of the pending claims were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,507,865 (hereinafter "Yoshida") in view of U.S. Patent No. 5,106,416 (hereinafter "Moffatt"). Additionally, claim 13 was objected to for a minor informality.

Regarding the objection to claim 13, this claim is represented herein with the appropriate claim identifier as amended in the RCE application filed on April 11, 2006. Withdrawal of this object is respectfully requested.

Rejections Under 35 U.S.C. § 103

The Examiner has rejected claims 1-4, 6-17, and 19-26 as being obvious over Yoshida in view of Moffatt. As previously set forth, the Yoshida reference is drawn towards an aqueous ink composition that when used in recording, gives a high-quality recorded image having improved image density while preventing the bronzing phenomenon. The aqueous ink compositions taught in Yoshida can include a water-soluble dye, water, and a basic amino acid. Additionally, Yoshida discloses without giving any examples or guidance whatsoever, that "the present invention may further contain, if desired or necessary, other additives such as a wetting agent, a surfactant, a pH regulator, an antiseptic, a mildew-proofing agent, an evaporation accelerator, and a chelating agent." The Examiner has previously stated that Yoshida does not specifically teach an "amphoteric" surfactant. It should be pointed out at this time that not only does Yoshida fail to mention or exemplify the use of an amphoteric surfactant, but also fails to teach the amount of any type of appropriate surfactant that could be used. In other words, the mentioning of a surfactant in a list of other possible ingredients appears to be more of a throw away or catch-all line of possible ingredients that might be used.

Moffatt teaches ink-jet inks which utilize various types of surfactants to improve the color bleeding of the ink-jet ink. Thus, there is no specific suggestion of using amphoteric surfactants over other types of surfactants. The inks taught in Moffatt can comprise a vehicle, a cationic dye, high boiling point solvent, and one or

two amphiphiles surfactant(s) at concentrations above their critical micelle concentration (cmc). (The term “amphiphile” should not be confused with “amphoteric surfactant” as one has to do with hydrophobic/hydrophilic character which all surfactants exhibit and the other has to do with charge wherein within certain pH ranges, both a positive and a negative charge can be present simultaneously). Above the cmc, micelles form, which attract the dye molecule and thus control the color bleed. This is true in Moffatt regardless of whether an amphoteric surfactant or any other type of surfactant is used.

With this background in mind, a more detailed discussion of the case law surrounding obviousness is thought appropriate. Specifically, the Examiner should consider that the cited combination i) lacks motivation to combine, ii) is based on improper hindsight, and iii) would destroy the function of at least one of the references. Further, the Applicant would like to point out that the ability to modify a reference is insufficient for a finding of obviousness, and further, at best, the combination proposed by the Examiner may only be obvious to try, which does not rise to the level of obviousness.

In order to maintain a *prima facie* case of obviousness by combining references, the prior art must provide some reason or motivation to make the claimed compositions. *In re Dillon*, 16 U.S.P.Q.2d 1897, 1901 (Fed. Cir. 1990). As aptly stated in *In re Jones*, 21 U.S.P.Q.2d 1941, 1943-44 (Fed. Cir. 1992):

"Before the PTO may combine the disclosure of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art... Conspicuously missing from this record is any *evidence*, other than the PTO's speculation (if it be called evidence) that one of ordinary skill in the...art would have been motivated to make the modifications of the prior art necessary to arrive at the claimed (invention)."

An excellent summary of how the prior art must be considered to make a case of *prima facie* obviousness is contained in *In re Ehrreich et al.*, 220 U.S.P.Q. 504, 509-511 (CCPA 1979). There the court states that a reference must not be considered in a vacuum, but against the background of the other references of record. It is stated that the question of a § 103 case is what the reference(s) would "collectively suggest"

to one of ordinary skill in the art. However, the court specifically cautioned that the Examiner must consider the entirety of the disclosure made by the reference and avoid combining them indiscriminately.

In finding that the "subject matter as a whole" would not have been obvious in *Ehrreich* the court concluded:

"Thus, we are directed to no combination of prior art references which would have rendered the claimed subject matter as a whole obvious to one of ordinary skill in the art at the time the invention was made. The PTO has not shown the existence of all the claimed limitations in the prior art or any suggestion leading to their combination in the manner claimed by applicants." (underlining added)

It has been widely recognized that virtually every invention is a combination of elements and that most, if not all, of these will be found somewhere in an examination of the prior art. This reasoning lead the court, in *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 199 (Fed. Cir. 1983) to state:

"...it is common to find elements or features somewhere in the prior art. Moreover, most if not all elements perform their ordained and expected function. The test is whether the claimed invention as a whole, in light of all the teachings of the references in their entireties, would have been obvious to one of ordinary skill in the art at the time the invention was made." (underlining added)

In re Sernaker, 217 U.S.P.Q. 1, 5-6, (Fed. Cir. 1983) states a test to determine whether a rejection of an invention based on a combination of prior art elements is appropriate as follows:

"The lesson of this case appears to be that prior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining their teachings...The board never showed how the teaching of the prior art could be combined to make the invention." (underlining added)

Moreover, in *In re Dow Chemical Co.*, 5 U.S.P.Q.2d 1529, (Fed. Cir. 1988), the court states that both the suggestion and the expectation of success must be

founded in the prior art, not in the applicants disclosure. The Federal Circuit stated in *In re Carroll*, 202 U.S.P.Q. 571, 572 (Fed. Cir. 1979):

One of the more difficult aspects of resolving questions of non-obviousness is the necessity "to guard against slipping into use of hindsight (citing *Graham v. Deere*). Many inventions may seem obvious to everyone after they have been made...(citation of §103)...Thus, in deciding the issue of obviousness, we must look at the prior art presented from a vantage point in time prior to when the invention was made, and through the eyes of a hypothetical person of ordinary skill in the art.

Additionally, there can be no motivation to combine if a proposed modification would destroy function of reference. See *In re Haruna*, 249 F.3d 1327, 58 U.S.P.Q.2d 1517 (Fed. Cir. 2001).

Returning to the specific rejections at hand, the Applicant reiterates the arguments from the last response, which are incorporated herein by reference. Specifically, regarding this combination rejection, speaking of Yoshida, the Examiner has previously stated in the most recent office action that the term "surfactant" suggests the addition of any surfactant that is typically added to ink compositions. This is an interesting statement, in that though surfactants are "typically" added to inks as alleged by the Examiner, Yoshida does not add any type of surfactant to its working examples, let alone the specialized type of amphoteric surfactant required by the currently claimed invention. Further, it is also noteworthy that the only example in Moffatt which is used to teach the claimed invention is not an amphoteric surfactant, but a non-ionic amphiphile. Thus, though the combination of references has general teachings of the use of amino acids and amphoteric surfactants, neither exemplify the use of an amphoteric surfactant in a working example. Thus, in order to arrive at the claimed invention, one would have to accept the "catch all" language of adding a surfactant from Yoshida, and choose a surfactant for use that is arguably one of the less common types of surfactants in the art. Based on Moffatt, there is no more reason to select an amphoteric surfactant for use than other types of surfactants, such as Surfynol 465, which is the exemplified surfactant. The Applicant is not claiming to have invented the use of amino acids in inks, nor the use of amphoteric surfactants in inks. The Applicant is claiming to have discovered that the combination of amphoteric surfactant and amino acid in a black ink-jet ink has

desirably properties, particularly on plain paper, and that this combination is patentable over the prior art.

Previously, the Applicants have amended the claims to require that the amphoteric surfactant be present at from 0.01 wt% to 2 wt% in the liquid vehicle. It should be noted that Yoshida makes no mention as to the amount of surfactant that can be added, and thus, this previously entered amendment further distinguishes the claimed invention over the prior art.

Another point which should be considered by the Examiner is the nature of the colorant in Yoshida and Moffatt. Moffatt is drawn to using surfactants with cationic dyes. This is critical to the invention as set forth in the Moffatt specification, as the cationic dyes interact with the surfactants described therein. Conversely, Yoshida describes water-soluble dyes for use generally, and only exemplifies dyes that are not cationic. If the specifically described dyes of Yoshida were used in accordance with the Moffatt reference, then the function of Moffatt would be destroyed, i.e. such a modification would require the changing what Moffatt teaches as a critical element to the invention.

Reconsideration is respectfully requested.

In view of the foregoing, Applicants believe that claims 1-26 present allowable subject matter and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone W. Bradley Haymond (Registration No. 35,186) at (541) 715-0159 so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 08-2025.

Dated this 28th day of July, 2006.

Respectfully submitted,


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